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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/681,068	10/07/2003	Andrew S. Hildebrant	10030549-1	8619

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AGILENT TECHNOLOGIES, INC.
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EXAMINER

STALLARD, JOSEPH A

ART UNIT	PAPER NUMBER
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3715

DATE MAILED: 12/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/681,068	Applicant(s) HILDEBRANT ET AL.	
	Examiner J. Andrew Stallard	Art Unit 3715	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/7/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Fulks (US 4,727,312).

Claim 1: Fulks discloses a method comprising: reading a test file having a plurality of test vectors; determining a required memory needed to execute the plurality of test vectors; and using the required memory to estimate a cost to execute the test vectors (*col. 1, 16-19; The required memory needed to execute the plurality of test vectors is declared to be large, and thus expensive. Thus, the required memory was determined and used to estimate a cost to execute the test vectors. Said test vectors are stored in a test program, or test file.*).

Claim 2: It is inherent in Fulks to receive a billing scheme and wherein using the required memory to estimate a cost includes using the billing rate to estimate the cost to execute the test vectors (*Estimating a cost requires a billing rate.*).

Claim 3: Fulks discloses that determining a required memory comprises determining a required memory needed for each of a plurality of boards of a tester to execute the test

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vectors for the board (col. 1, 10-11; *The use of circuits in the plural form implies a plurality of boards. The required memory would be determined for each one.*).

Claim 4: Fulks discloses that determining a required memory comprises determining a required memory needed for each of a plurality of pins of a tester to execute the test vectors for the pin (col. 1, 10-13; *Circuit terminals (pins) are tested. The plural form of terminals implies a plurality of pins for which the required memory is determined.*).

Claim 5: Fulks discloses that determining a required memory comprises counting the number of test vectors for each of one or more tests in the test file (col. 1, 16-19; *The number of test vectors is counted to be large.*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulks (US 4,727,312) in view of Hughes (US 4,493,079).

Fulks discloses applicant's basic inventive concept of a method of estimating testing costs, substantially as claimed with the exception of determining a first memory requirement needed for a first pin of a tester to execute the test vectors for a first test in the test file; setting the required memory equal to the first memory requirement; and for

each additional pin of the tester, determining a second memory requirement needed for the additional pin to execute the test vectors for the first test; and if the second memory requirement is greater than the first memory requirement, setting the required memory equal to the second memory requirement; and for each additional test in the test file: for each pin of the tester, determining a third memory requirement for the pin to execute the test vectors for the additional test; and setting the required memory equal to the third memory requirement if the third memory requirement is greater than the required memory. Hughes shows this feature to be old in the test vector art. Hughes discloses using test vectors for four pins and loading the test vectors into the individual pin memories (*col. 5, 16-28*). This would require determining the memory requirement for each pin and for each of the test vectors to know the size the test vector store. This would be necessary in order to perform the method of Fulks on the circuit of Hughes, so the cost of the circuit could be estimated. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention from the teaching of Hughes to use the method of Fulks to estimate the cost of the circuit of Hughes.

Claims 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fulks (US 4,727,312) in view of Foley (US 5,249,120).

Fulks discloses applicant's basic inventive concept a method of estimating testing costs, substantially as claimed with the exception of a system with one or more machine-readable mediums having stored thereon sequences of instructions, which, when executed by a machine, cause the machine to perform said method and with a user input. Foley shows this feature to be old in the cost estimating art. Foley discloses

a system for automatically estimating a cost of manufacturing a part (*col. 2, 34-37*). Foley also discloses including in the system a computer, which has one or more machine-readable mediums (*Fig. 3*) and a user interface (*Fig. 1*). Foley teaches that automated techniques reduce labor costs (*col. 2, 59-60*). It would be beneficial for Fulks to be automated as taught by Foley to reduce labor costs. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention from the teaching of Foley to modify the method of Fulks by automating said method as taught by Foley to reduce labor costs. Furthermore, *In re Venner* (120 USPQ 192 (CCPA 1958)) states "It is well settled that it is not 'invention' to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result." See MPEP 2106.VI.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fulks (US 4,727,312) in view of Foley (US 5,249,120) further in view of Hughes (US 4,493,079).

Fulks and Hughes disclose applicant's basic inventive concept of a method of estimating costs of the circuit of Hughes, substantially as claimed with the exception of a system with one or more machine-readable mediums having stored thereon sequences of instructions, which, when executed by a machine, cause the machine to perform said method. Foley shows this feature to be old in the cost estimating art. Foley discloses a system for automatically estimating a cost of manufacturing a part (*col. 2, 34-37*). Foley also discloses including in the system a computer, which has one or more machine-readable mediums (*Fig. 3*) and a user interface (*Fig. 1*). Foley

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teaches that automated techniques reduce labor costs (*col. 2, 59-60*). It would be beneficial for Fulks and Hughes to be automated as taught by Foley to reduce labor costs. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention from the teaching of Foley to modify the method of Fulks and Hughes by automating said method as taught by Foley to reduce labor costs. Furthermore, *In re Venner* (120 USPQ 192 (CCPA 1958)) states "It is well settled that it is not 'invention' to broadly provide a mechanical or automatic means to replace manual activity which has accomplished the same result." See MPEP 2106.VI.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Andrew Stallard whose telephone number is (571) 272-2685. The examiner can normally be reached on 9:15 am to 6:45 pm - Mon - Fri (1st Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J. Andrew Stallard
Examiner
Art Unit 3715

Monica S. Carter
MONICA S. CARTER
PRIMARY EXAMINER
SPE, AU
3715